# NABARUN MONDAL

**Technology Leader | Engineering Executive**

📞 +91 984-966-8397  @ nmandalh@hotmail.com  🔗 https://www.linkedin.com/in/nabarunmondal/  📍 Hyderabad, India

## SUMMARY

Engineering professional with **over 21 years of experience** in building and managing software products. I have **multiple patents & publications** and have led teams and projects at top tech companies, focusing on **customer-driven** products and **scalable architecture**. My strengths include **technology adoption**, and **innovation**, team **leadership**, and ensuring that products are both **efficient, economic, and future-ready**.

## EXPERIENCE

**Personal Venture**
### Career Break II
📅 03/2024 - Present  📍 Hyderabad, India
Personal break for recovery and personal projects
- Taking a break for rejuvenation
- Working on various personal projects & ideas

### CTO
**Blox.xyz**
📅 11/2022 - 02/2024  📍 Hyderabad, India
A real estate tech startup with a vision to create a digital ecosystem for real estate
- Invented tech-aided site visit mechanism to detect and reduce fraud
- Developed 26 innovations in a span of 16 months, including LLM integration for listing, worlds first real estate NER search, sentiment analysis on call center conversations
- Implemented internal apps to digitize business processes
- Reduced tech vertical running cost by 40%

**Personal Venture**
### Career Break I
📅 08/2022 - 11/2022  📍 Hyderabad, India
Personal break for health recovery and project reflections
- Taking a break after working close to 16X5 during the pandemic
- Worked on personal projects and documentation of personal open source projects

### Senior Staff Software Engineer
**Compass India**
📅 03/2020 - 07/2022  📍 Hyderabad, India
Real estate tech startup to support business operations and growth through technology
- Fixed 30+ production issues in the first month
- Created libraries to ensure maximal code reuse including infra like SIRIUS a competitor for Graphql https://nmondal.github.io/assets/pdfs/sirius.pdf
- Wrote specifications and implemented various SAAS apps
- Led hiring efforts and conducted over 600 interviews
- Delivered ROI-driven solutions to the business - saving around 5 mn USD year on year

### Senior Software Engineer (SDE 3)
**Amazon India**
📅 09/2019 - 03/2020  📍 Hyderabad, India
Worked in the FinTech department handling vendor payments and fraud detection
- Mentored a team of 100 people handling fintech operations for Amazon
- Implemented statistical learning techniques for decision making
- Vendor fraud detection improving ROI by 500 Million USD year on year
- Developed DHARA, a scalable workflow engine using a custom DSL
- Reduced development and testing times through these innovation by from months to weeks

### Partner
**BayesTree Intelligence**
📅 12/2017 - 09/2019  📍 Hyderabad & Bangalore, India
Startup making cognitive enterprise ML products for information flow - owned a minor stake.
- Worked on multiple positions as Principal Solution Architect and Head of Engineering
- Chief Architect for all product lines https://nmondal.github.io/assets/pdfs/sainapse.pdf
- Led the development of proprietary tools and solutions for clients
- Heavy use of custom DSL, framework and tech that reduced ship time from months to days

## KEY ACHIEVEMENTS

💎 **Cost Reduction Leader**
Reduced Blox running cost by 40% in 2023.
https://nmondal.github.io/assets/pdfs/manifesto.pdf

💡 **Innovation Driver**
Developed 26 innovations in 16 months at Blox.
https://patents.justia.com/inventor/nabarun-mondal
https://arxiv.org/a/mondal_n_1.html

📋 **Branding And Recruitment**
Led hiring and conducted over 600 interviews at Compass.
https://nmondal.github.io/assets/pdfs/iv.pdf

## SKILLS

| | | | | |
|---|---|---|---|---|
| Apache Hadoop | Android | Apache Hive | | |
| Apache Spark | Aspect Oriented Programming | | AWS | |
| Cypher | C/C++ | C# | CLR | Dart | DSL |
| Docker | Druid | Elasticsearch | ERP | Flutter |
| Event Driven Architecture | Flutter | Graph QL | |
| HiveQL | GO | Google Cloud | Java | JVM |
| JavaScript | Jetty | Kafka | Kotlin | Kubernetes |
| LLM | ML | Shell Scripting | Message Queue | |
| Maven | MFC | Microservices | ML Algorithms |
| Office Automation | Python | Power Shell | PHP |
| SOA | Ruby | Scala | Windows Kernel |
| Win DBG | Windows Drivers | | |

## INNOVATIONS

### Personal Projects
📅 03/2024 - Present  📍 Hyderabad, India
Personal projects exploring modular and efficient software architectural paradigms
- Wrote a paper on efficacy of test-driven design framework
- Developed RAMA, a modular event bus
- Created 42, a modular headless ERP
- Readying production release of the DSL : ZoomBA https://gitlab.com/non.est.sacra/zoomba

### Blox Labs
📅 11/2022 - 02/2024  📍 Hyderabad, India
Tech solutions to disrupt real estate industry standards
- Created the world's sleekest real estate web app
- Developed automated ERP updates from call logs and call recordings

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## EXPERIENCE

### Staff Engineer
**LinkedIn India**
📅 11/2016 - 11/2017  📍 Bangalore, India
Worked on technology initiatives to enhance LinkedIn features and productivity
- Gatekeeper of quality for India's tech team around 200 of them
- Developed productivity tools and frameworks for automatic verification
- Custom PIG UDF created to act as business rule injector for Hadoop jobs sending 10 million SMS/mails to all over South East Asia
- Analyzed time series production data for insights

### Senior Engineering Manager
**Arcesium India & D.E. Shaw & Co**
📅 08/2010 - 11/2016  📍 Hyderabad, India
Software development focused on testing frameworks and QA automation
- Led SWAT team to improve code quality for going SAAS
- Designed automation frameworks for testing and performance including 3 custom DSL languages which gets used inside the firm till today - one of them is a form of Apache jexl.
- Mentored and trained team members and new hires - around 100 of them
- Interviewed around 1000+ over 6 years - given multiple awards for being the most prolific interviewer and corporate brand ambassador, and change agent

### Software Design Engineer in Test II
**Microsoft India Development Center**
📅 03/2004 - 07/2010  📍 Hyderabad, India
Worked on SOA architecture projects and automation for QA as well as Windows Kernel and Microsoft Office Team
- As part of Windows 7 Kernel team root caused 100+ critical crashes in Win7
- Developed SOA-based projects Duet and Information Bridge Framework
- Mentored junior team members
- Owned components for Windows Update Client
- Received 1 patent, 2 outstanding achievers awards, 1 Engineering Excellence award

### Software Developer
**TCG Software Solutions Limited**
📅 08/2003 - 03/2004  📍 Kolkata, India
Supported embedded software for genetic testing using ABI Prism 700
- Supported ABI Prism 700 software for genetic testing
- Fixed 100+ bugs in the software to improve performance
- Presented the underlying biotechnology theory to the entire team

## EDUCATION

### Bachelor in Computer Science & Technology
**Bengal Engineering College, Shibpur**
📅 08/1999 - 05/2003  📍 India

## PATENTS

**Metadata driven user interface**
Metadata is used to create customized user interface (UI) portions for an application. The metadata may be XML-based and can be interpreted and then rendered to implement a customized UI that also supports data binding between data and the UI controls. Once created, the metadata is processed by a rendering engine to display the UI controls. An interpreter may be used to interpret the metadata file before it sent to the rendering engine.

**Recommender and remediation system for enterprise service management**
A system and method for automatically and algorithmically resolving service tickets through the utilization of historical solution data obtained from multiple sources. The system and method are optionally capable of providing and executing a BOT capable of implementing one or solutions based on the automatic and algorithmic recommendation of a solution to resolve the service ticket(s)

## LANGUAGES

**English**
Native
●●●●●

**Hindi**
Proficient
●●●●○

**Bengali**
Native
●●●●●

## INNOVATIONS

### Compass Tech Enhancements
📅 03/2020 - 07/2022  📍 Hyderabad, India
Tech solutions for enhancing code and software performance
- Fixed 30+ production issues in Android
- Developed RAC for speeding CI/CD pipeline

## INTERESTS

💡 **Formalism in Software Systems**
Authored multiple papers on the same. Most notably proving a narrow context for validity for TDD.
https://arxiv.org/a/mondal_n_1.html

🐙 **Open Source Contributions**
Multiple contributions in Apache JMeter, Mozilla Rhino. Maintains multiple open source repos in:
https://github.com/nmondal
https://gitlab.com/non.est.sacra/

🎖 **Community Building**
Top 10% author in Software Engineering in Quora :
https://www.quora.com/profile/Nabarun-Mondal-3
Public Speaker:
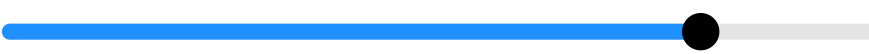https://www.testingmind.com/class/formal-methods-in-qa-automation-using-dsl/
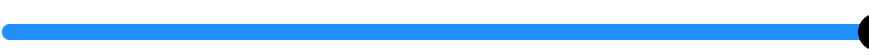
⚙ **Other Activities**
Active participation and contributions in technical distribution lists. Voracious reader, debater, painter, and cartoonist. An amateur author. State level precision shooter.
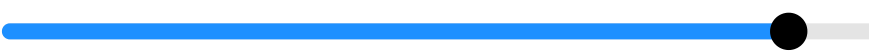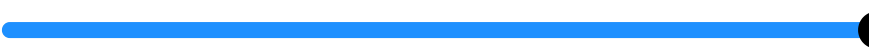
## INDUSTRY EXPERTISE

**Budgeting**
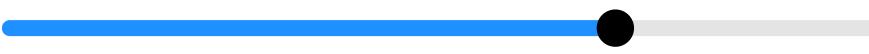
**Delivery**

**Innovation**

**Leadership**

**Mentoring**

**Product & Strategy**

**Recruiting**

**Sales & Marketing**

**Technology**